Pharmacology Biochemistry and Behavior, Vol. 64, No. 4, pp. 913–921, 2000
© 2000 Elsevier Science Inc.
Printed in the USA. All rights reserved
0091-3057/00/$–see front matter

ELSEVIER

CONTENTS
VOLUME 66, 2000

SPECIAL ISSUE: DRUGS OF DESIRE

Editorial

FILE, S.E. 1

Articles

Food craving and food "addiction": A critical review of the evidence from a biopsychosocial perspective.
ROGERS, P. J. and H. J. SMIT 3

Reversal of caffeine withdrawal by ingestion of a soft beverage.
WATSON, J. M., M. J. LUNT, S. MORRIS, M. J. WEISS, D. HUSSEY and D. KERR 15

The acute physiological and mood effects of tea and coffee: The role of caffeine level.
QUINLAN, P. T., J. LANE, K. L. MOORE, J. ASPEN, J. A. RYCROFT and D. C. O'BRIEN .. 19

The influence of caffeine on sustained attention: An ERP study.
RUIJTER, J., M. M. LORIST, J. SNEL and M. B. DE RUITER 29

Caffeine-induced increases in the brain and plasma concentrations of neuroactive steroids in the rat.
CONCAS, A., P. PORCU, C. SOGLIANO, M. SERRA, R. H. PURDY and G. BIGGIO..... 39

Alteration of the behavioral effects of nicotine by chronic caffeine exposure.
TANDA, G. and S. R. GOLDBERG 47

The role of the dorsal hippocampal serotonergic and cholinergic systems in the modulation of anxiety.
FILE, S. E., P. J. KENNY and S. CHEETA 65

Depressive characteristics of FSL rats: Involvement of central nicotinic receptors.
TIZABI, Y., A. H. REZVANI, L. T. RUSSELL, K. Y. TYLER and D. H. OVERSTREET 73

The effects of nicotine on neural pathways implicated in depression: A factor in nicotine addiction?
BALFOUR, D. J. K. and D. L. RIDLEY..... 79

Effect of acute nicotine on fos protein expression in rat brain during chronic nicotine and its withdrawal.
SALMINEN, O., T. SEPPÄ, H. GÄDDNÄS and L. AHTEE..... 87

Chronic nicotine administration in the drinking water affects the striatal dopamine in mice.
PIETILÄ, K. and L. AHTEE..... 95

Effects of *Hypericum perforatum* extract on ethanol intake and on behavioral despair: A search for the neurochemical systems involved.
PANOCKA, I., M. PERFUMI, S. ANGELETTI, R. CICCOCIOPPO and M. MASSI 105

An assessment of novelty-seeking behavior in alcohol-preferring and nonpreferring rats.
NOWAK, K. L., C. M. INGRAHAM, D. L. MCKINZIE, W. J. MCBRIDE, L. LUMENG, T.-K. LI and J. M. MURPHY 113

Reinstatement of ethanol seeking in rats: Behavioral analysis.
BIENKOWSKI, P., E. KOROS, W. KOSTOWSKI and A. BOGUCKA-BONIKOWSKA 123

Effect of 5-HT_{1B} receptor ligands on self-administration of ethanol in an operant procedure in rats.
TOMKINS, D. M. and M. F. O'NEILL 129

Lead acetate potentiates brain catalase activity and enhances ethanol-induced locomotion in mice.
CORREA, M., M. MIQUEL and C. M. G. ARAGON 137

Withdrawal symptoms in a long-term model of voluntary alcohol drinking in Wistar rats.
HÖLTER, S. M., A. C. E. LINTHORST, J. M. H. M. REUL and R. SPANAGEL 143

Prolonged changes in neurochemistry of dopamine neurones after chronic ethanol consumption.
BAILEY, C. P., N. ANDREWS, A. T. MCKNIGHT, J. HUGHES and H. J. LITTLE 153

Blood cholesterol levels of 32-year-old alcohol consumers are better than of nonconsumers.
KOPPES, L. L. J., J. W. R. TWISK, J. SNEL, W. VAN MECHELEN and H. C. G. KEMPER 163

Motivations to control drinking behavior in abstainers, moderate, and heavy drinkers.
TRIMMEL, M. and E. KÖPKE 169

Different effects of nabilone and cannabidiol on binocular depth inversion in man.
LEWEKE, F. M., U. SCHNEIDER, M. RADWAN, E. SCHMIDT and H. M. EMRICH 175

Permissive role of dopamine D_2 receptors in the hypothermia induced by Δ^9-tetrahydrocannabinol in rats.
NAVA, F., G. CARTA and G. L. GESSA 183

Lack of specific effects of selective D_1 and D_2 dopamine antagonists vs. risperidone on morphine-induced hyperactivity.
RODRÍGUEZ-ARIAS, M., I. BROSETA, M. A. AGUILAR and J. MIÑARRO 189

Stereoselective morphine-like discriminative properties of a new alkylaminonaphthalenic derivative.
FRAIOLI, S., L. ANTONILLI and P. NENCINI 199

Lack of crosstolerance between morphine and morphine-6-glucuronide as revealed by locomotor activity.
GRUNG, M., S. SKURTVEIT, Å. RIPEL and J. MØRLAND 205

Effects of serotonergic manipulations on the behavioral sensitization and disinhibition associated with repeated amphetamine treatment.
OLAUSSON, P., J. A. ENGEL and B. SÖDERPALM 211

Absence of cocaine-induced place conditioning in serotonin 1B receptor knock-out mice.
BELZUNG, C., K. SCEARCE-LEVIE, S. BARREAU, and R. HEN 221

CONTENTS VOLUME 66 NUMBER 2 2000

Articles

Dopamine—acetylcholine interaction in the rat lateral hypothalamus in the control of locomotion.
DE PARADA, M. P., M. A. PARADA, P. RADA, L. HERNANDEZ and B. G. HOEBEL 227

Chronic corticosterone impairs inhibitory avoidance in rats: Possible link with atrophy of hippocampal CA3 neurons.
BISAGNO, V., M. FERRINI, H. RÍOS, L. M. ZIEHER and S. I. WIKINSKI 235

Sensitivity to ethanol-induced motor incoordination in FAST and SLOW selectively bred mice.
BOEHM, II, S. L., J. C. CRABBE and T. J. PHILLIPS 241

Cocaine-induced sniffing stereotypy changes in response to threat.
BLANCHARD, R. J., M. HEBERT, L. DULLOOG, C. MARKHAM, R. FIGUEIRA, O. NISHIMURA, K. NEWSHAM, J. N. KAAWALOA and D. C. BLANCHARD 249

Methylxanthines reverse the adipsic and aphagic syndrome induced by bilateral 6-hydroxydopamine lesions of the nigrostriatal pathway in rats.
CASAS, M., G. PRAT, P. ROBLEDO, M. BARBANOJ, J. KULISEVSKY and F. JANÉ 257

Effect of flumazenil and diazepam on transient actions in defensive burying elicited by the social interaction experience in rats.
SALDÍVAR-GONZÁLEZ, A., C. GÓMEZ, I. MARTÍNEZ-LOMELÍ and C. ARIAS 265

Acute effects of nalmefene on LH, prolactin, and testosterone in male Rhesus monkeys.
MELLO, N. K., J. H. MENDELSON and M. KELLY 275

Simultaneous monitoring of conditioned place preference and locomotor sensitization following repeated administration of cocaine and methamphetamine.
SHIMOSATO, K. and S. OHKUMA 285

Behavioral activating effects of adrafinil in aged canines.
SIWAK, C. T., P. GRUET, F. WOEHRLÉ, M. SCHNEIDER, B. A. MUGGENBURG, H. L. MURPHEY, H. CALLAHAN and N. W. MILGRAM 293

Oral administration of adrafinil improves discrimination learning in aged beagle dogs.
MILGRAM, N. W., C. T. SIWAK, P. GRUET, P. ATKINSON, F. WOEHRLÉ and H. CALLAHAN 301

Microinjections of dopaminergic agents in the nucleus accumbens affect ethanol consumption but not palatability.
KACZMAREK, H. J. and S. W. KIEFER 307

Effects of cocaine and morphine under mixed-ratio schedules of food delivery: Support for a behavioral momentum analysis.
POLING, A., T. BYRNE, L. CHRISTIAN and M. G. LESAGE 313

A rodent model of cocaine abstinence syndrome.
MALIN, D. H., W. D. MOON, E. T. MOY, R. E. JENNINGS, D. M. MOY, R. L. WARNER and O. B. WILSON 323

Ethopharmacology of the antidepressant effect of clonazepam in diabetic rats.
GOMEZ, R. and H. M. T. BARROS 329

Multiple ejaculations and chronic fluoxetine: Effects on male rat copulatory behavior.
FRANK, J. L. W., S. E. HENDRICKS and C. H. OLSON 337

Long-term voluntary access to running wheels decreases kappa-opioid antinociception.
D'ANCI, K. E., A. V. GERSTEIN and R. B. KANAREK 343

The effect of nimodipine on opioid antagonist-induced upregulation and supersensitivity.
LEE, S. C. and B. C. YOBURN 347

Effects of low dosages of apomorphine on maternal responsiveness in lactating rats.
STERN, J. M. and M. PROTOMASTRO 353

Precipitated and spontaneous withdrawal following administration of lorazepam but not zolpidem.
ELLIOT, E. E., and J. M. WHITE 361

Mice lacking the long splice variant of the γ2 subunit of the $GABA_A$ receptor are more sensitive to benzodiazepines.
QUINLAN, J. J., L. L. FIRESTONE and G. E. HOMANICS 371

The importance of acclimation in acoustic startle amplitude and pre-pulse inhibition testing of male and females rats.
FARADAY, M. M. and N. E. GRUNBERG 375

Factors elevating cAMP attenuate the effects of 8-OH-DPAT on lordosis behavior.
UPHOUSE, L., S. MASWOOD and A. JACKSON 383

Inhibitory effect of buspirone and diazepam, but not of 8-OH-DPAT, on maternal behavior and aggression.
FERREIRA, A., O. PICAZO, N. URIARTE, M. PEREIRA and A. FERNÁNDEZ-GUASTI 389

Cocaine intake by rats correlates with cocaine-induced dopamine changes in the nucleus accumbens shell.
FERRARO, T. N., G. T. GOLDEN, W. H. BERRETTINI, E. GOTTHEIL, C. H. YANG, G. R. CUPPELS and W. H. VOGEL 397

Behavioral effects of 8-OH-DPAT in chronically stressed male and female rats.
SIPOS, M. L., R. A. BAUMAN, J. J. WIDHOLM and G. J. KANT 403

Potentiation of ethanol-induced loss of the righting reflex by ascorbic acid in mice: Interaction with dopamine antagonists.
WU, C.-F., H.-L. ZHANG and W. LIU 413

Opiate withdrawal in the fetal rat: A behavioral profile.
JONES, K. L. and G. A. BARR 419

Pentylenetetrazol-kindling modulates stimulated dopamine release in the nucleus accumbens of rats.
BECKER, A., G. GRECKSCH, W. THIEMANN, and V. HÖLLT 425

Food intake after diazepam, morphine or muscimol: Microinjections in the nucleus accumbens shell.
SÖDERPALM, A. H. V. and K. C. BERRIDGE 429

Importance of environmental context in the development of amphetamine- or apomorphine-induced stereotyped behavior after single and multiple doses.
BATTISTI, J. J., N. J. URETSKY and L. J. WALLACE 435

Central 5-HT$_4$ receptors and drinking behavior.
CASTRO, L., E. DE CASTRO-E-SILVA, A. K. S. LIMA, F. S. SOUZA, I. MALDONADO, D. F. MACÊDO, M. G. FERREIRA, G. F. SANTAMARIA, I. P. V. BANDEIRA, A. L. M. AMOR, F. L. Q. CARVALHO, M. A. ROCHA, JR., I. R. OLIVEIRA and J. B. FREGONEZE 443

Cocaine affects progesterone plasma levels in female rats.
QUIÑONES-JENAB, V., L. I. PERROTTI, A. HO, S. JENAB, S. D. SCHLUSSMAN, J. FRANCK and M. J. KREEK 449

A comparison of the reinforcing efficacy of alcohol in alcohol-preferring (P) and alcohol-nonpreferring (NP) rats.
HEYMAN, G. M. 455

CONTENTS VOLUME 66 NUMBER 3 2000

Articles

Lead and ethanol coexposure: Implications on the dopaminergic system and associated behavioral functions.
GUPTA, V. and K. D. GILL 465

Time course of pharmacodynamic and pharmacokinetic effects of physostigmine assessed by functional brain imaging in humans.
FUREY, M. L., P. PIETRINI, G. E. ALEXANDER, M. J. MENTIS, J. SZCZEPANIK, U. SHETTY, N. H. GREIG, H. W. HOLLOWAY, M. B. SCHAPIRO and U. FREO 475

MDMA stimulus generalization to the 5-HT$_{1A}$ serotonin agonist 8-hydroxy-2-(di-*n*-propylamino)tetralin.
GLENNON R. A. and R. YOUNG 483

Stimulus effects of phenylpropanolamine optical isomers in (+)amphetamine-trained rats.
YOUNG, R. and R. A. GLENNON 489

Prenatal nicotine exposure: Effects on locomotor activity and central [^{125}I]α-BT binding in rats.
TIZABI, Y., L. T. RUSSELL, S. M. NESPOR, D. C. PERRY and N. E. GRUNBERG 495

MDMA and learning: Effects of acute and neurotoxic exposure in the rat.
BYRNE, T., L. E. BAKER and A. POLING 501

Acute effects of *d*-amphetamine during the early and late folicular phases of the menstrual cycle in women.
JUSTICE, A. J. H. and H. DE WIT 509

Further characterization of the discriminative stimulus effects of spiradoline.
HOLTZMAN, S. G. 517

Altered regulation of dopaminergic activity and impairment in motor function in rats after subchronic exposure to styrene.
CHAKRABARTI, S. K. 523

The delayed effects of DTG and MK-801 on latent inhibition in a conditioned taste-aversion paradigm.
TURGEON, S. M., E. A. AUERBACH, M. K. DUNCAN-SMITH, J. R. GEORGE and W. W. GRAVES 533

Effects of serotonergic agents on the transport response in rats.
WILSON, C. and M. PULIDO 541

Ketamine blocks a taste-mediated conditioned motor response in perinatal rats.
MICKLEY, G. A., D. R. REMMERS-ROEBER, C. CROUSE and R. PELUSO 547

Nicotine blood levels and subjective craving for cigarettes.
JARVIK, M. E., D. C. MADSEN, R. E. OLMSTEAD, P. N. IWAMOTO-SCHAAP, J. L. ELINS and N. L. BENOWITZ 553

Reinstatement of both a conditioned place preference and a conditioned place aversion with drug primes.
PARKER, L. A. and R. V. MCDONALD 559

Naltrexone alteration of acute smoking response in nicotine-dependent subjects.
KING, A. C. and P. J. MEYER 563

Effect of the dopamine $D_{1/5}$ antagonist SCH 23390 on the acquisition of conditioned fear.
INOUE, T., T. IZUMI, Y. MAKI, I. MURAKI and T. KOYAMA 573

Effects of dopamine, NMDA, opiate, and serotonin-related agents on acute methamphetamine-induced self-injurious behavior in mice.
SHISHIDO, T., Y. WATANABE, K. KATO, R. HORIKOSHI and S.-I. NIWA 579

Dexamethasone reverses the ethanol-induced anxiolytic effect in rats.
FERREIRA, V. M. M., R. N. TAKAHASHI and G. S. MORATO 585

Increases in sucrose consumption, but not ethanol consumption, following ICV NPY administration.
SLAWECKI, C. J., M. BETANCOURT, T. WALPOLE and C. L. EHLERS 591

Antagonistic effect of pseudoginsenoside-F11 on the behavioral actions of morphine in mice.
LI, Z., C. F. WU, G. PEI, Y. Y. GUO and X. LI 595

Heroin-induced suppression of saccharin intake in water-deprived andwater-replete rats.
GRIGSON, P. S., R. C. TWINING and R. M. CARELLI 603

Serotonin reuptake is less efficient in taste aversion resistant than in taste aversion-prone rats.
ELKINS, R. L., T. E. ORR, J. Q. LI, P. A. WALTERS, J. L. WHITFORD, G. F. CARL and J. L. RAUSCH 609

Involvement of the medial precentral prefrontal cortex in memory consolidation for inhibitory avoidance learning in rats.
MELLO E SOUZA, T. M. R. M. VIANNA, C. RODRIGUES, J. QUEVEDO, B. A. MOLETA and I. IZQUIERDO 615

Nitric oxide modulation affects the tissue distribution and toxicity of bupivacaine.
SHI, B. and J. E. HEAVNER 623

Non reciprocal cross-sensitization between cocaine and BTCP on locomotor activity in the rat.
MARTIN-FARDON, R., O. BEN-SHAHAR and F. WEISS 631

Mecamylamine blockade of both positive and negative effects of IV nicotine in human volunteers.
LUNDAHL, L. H., J. E. HENNINGFIELD and S. E. LUKAS 637

Effects of buspirone, diazepam, and zolpidem on open field behavior, and brain [^{3}H]muscimol binding after buspirone pretreatment.
SIEMIĄTKOWSKI, M., H. SIENKIEWICZ-JAROSZ, A. I. CZŁONKOWSKA, A. BIDZIŃSKI and A. PŁAŹNIK 645

Modulation of morphine-induced antinociception by palatable solutions in male and female rats.
KANAREK, R. B. and B. HOMOLESKI 653

Suppressive effects of Vietnamese ginseng saponin and its major component majonoside-R2 on psychological stress-induced enhancement of lipid peroxidation in the mouse brain.
YOBIMOTO, K., K. MATSUMOTO, N. T. T. HUONG, R. KASAI, K. YAMASAKI and H. WATANABE 661

Manipulation of central GABAergic and dopaminergic systems alters stress responding in the rat.
HAWKINS, M. F., A. A. BAUMEISTER, R. H. LaRUE, S. M. UZELAC, L. T. FOUNTAIN and A. C. HINDELANG 667

Articles

Importance of environmental context in the development of amphetamine- or apomorphine-induced stereotyped behavior after single and multiple doses.
BATTISTI, J. J., N. J. URETSKY and L. J. WALLACE 671

Ethanol potentiates dopamine release during acute hypoxia in rat striatum.
WANG, Y., A. L. CHIOU, C. H. JENG, S. T. YANG and J. C. LIN 679

Pentoxifylline improves learning and memory in glutamate-lesioned rats.
CUNHA, G. M. A., P. J. P. BEZERRA, M. D. D. SALDANHA, M. C. CAVALCANTE, V. M. S. DE BRUN and G. S. B. VIANA 687

Preexposure effects of nicotine and acetaldehyde on conditioned taste aversion induced by both drugs.
KUNIN, D., M. W. LATENDRESSE, S. GASKIN, B. R. SMITH, and Z. AMIT 695

Opiate delta-2-receptor antagonist naltriben does not alter discriminative stimulus effects of ethanol.
MHATRE, M. C., K. CARL, K. M. GARRETT and F. A. HOLLOWAY 701

A dopamine $D_{1/5}$ receptor antagonist, SCH23390, prevents stress-induced sudden death in cardiomyopathic hamsters.
ARAKAWA, H., H. KODAMA, I. YAMAGUCHI and N. MATSUOKA 707

Behavioral effects of betacarbolines in pigs: Anxiety or aversion?
PARROTT, R. F., S. V. VELLUCCI and J. A. GOODE 713

Intracerebroventricular and locus coeruleus microinjections of somatostatin antagonist decrease REM sleep in rats.
TOPPILA, J., P. NIITTYMÄKI, T. PORKKA-HEISKANEN and D. STENBERG 721

The 5-HT_2 receptor activation enhances impulsive responding without increasing motor activity in rats.
KOSKINEN, T., S. RUOTSALAINEN and J. SIRVIÖ 729

The effects of pyridostigmine bromide and permethrin, alone or in combination, on response acquisition in male and female rats.
VAN HAAREN, F., B. CODY, J. B. HOY, J. L. KARLIX, C. J. SCHMIDT, I. R. TEBBETT and D. WIELBO 739

Effects of sulpiride on the orienting movement evoked by acoustic stimulation in the rat.
CRESCIMANNO, G., M. MANNINO, M. CASARRUBEA and G. AMATO 747

The pharmacodynamics of PK 11195 in diazepam-dependent male and female rats.
SLOAN, J. W., E. P. WALA, X. JING and J R. HOLTMAN JR. 751

Sensitization to cocaine's reinforcing effects produced by various cocaine pretreatment regimens in rats.
SCHENK, S. and B. PARTRIDGE 765

Effect of Zena F-III®, a liquid nutritive and tonic drug, on the neurochemical changes elicited by physical fatigue in mice.
HANAWA, M.-A., T. ASANO, K. AKIYAMA, K. YABE, K. TSUNODA, T. TADANO and D. SUTOO 771

Assessment of SNC 80 and naltrindole within a conditioned taste aversion design.
HUTCHINSON, A. C., G. R. SIMPSON, J. F. RANDALL, X. ZHANG, S. N. CALDERON, K. C. RICE and A. L. RILEY 779

Behavioral responses to intramuscular injections of prostaglandin $F_{2\alpha}$ in female pigs.
BURNE, T. H. J., P. J. E. MURFITT and C. L. GILBERT 789

Effects of serotonin 5-HT_1 and 5-HT_2 receptor agonists in a conditioned taste aversion paradigm in the rat.
DE VRY, J., G. ECKEL, E. KUHL and R. SCHREIBER 797

Fine motor control in rats is disrupted by delta-9-tetrahydrocannabinol.
MCLAUGHLIN, P. J., C. E. DELEVAN, S. CARNICOM, J. K. ROBINSON and J. BRENER 803

Gender differences in learned helplessness behavior are influenced by genetic background.
CALDARONE, B. J., T. P. GEORGE, V. ZACHARIOU and M. R. PICCIOTTO 811

Ethanol enhances nicotine's effects on DRL performance in rats.
POPKE, E. J., C. M. FOGLE and M. G. PAULE 819

Recovery of diminished mealtime-associated anticipatory behavior by aniracetam in aged rats.
TANAKA, Y., M. KURASAWA and K. NAKAMURA 827

Amphetamine treatment during the preweanling period produces enduring changes in striatal protein kinase A activity.
CRAWFORD, C. A., A. R. ZAVALA, P. E. KARPER, R. L. COLLINS, T. LORING-MEIER, J. B. WATSON and S. A. MCDOUGALL 835

Farnesyl-L-cysteine analogs block SAM-induced Parkinson's disease-like symptoms in rats.
LAMANGO, N. S. and C. G. CHARLTON 841

Morphine discriminative control is mediated by the mu opioid receptor: Assessment of delta opioid substitution and antagonism.
STEVENSON, G. W., F. CAÑADAS, X. ZHANG, K. C. RICE and A. L. RILEY 851

Intra-VTA baclofen attenuates cocaine self-administration on a progressive ratio schedule of reinforcement.
BREBNER, K., R. PHELAN and D. C. S. ROBERTS 857

8-OH DPAT can restore the locomotor stimulant effects of cocaine blocked by haloperidol.
CAREY, R., E. DAMIANOPOULOS and G. DE PALMA 863

Changes in spinal serotonin turnover mediate age-related differences in the behavioral manifestations of peripheral nerve injury.
LOVELL, J. A., J. C. NOVAK, S. L. STUESSE, W. L. R. CRUCE and T. CRISP 873

Anticonvulsive effect of swim stress in mice.
PERIČIĆ, D., D. ŠVOB, M. JAZVINŠĆAK and K. MIRKOVIĆ 879

Gender, estrous cycle, ovariectomy, and ovarian hormones influence the effects of diazepam on avoidance conditioning in rats.
DÍAZ-VÉLIZ, G., S. BUTRÓN, MA. S. BENAVIDES, N. DUSSAUBAT and S. MORA 887

Blockade of latent inhibition following pharmacological increase or decrease of $GABA_A$ transmission.
LACROIX, L., S. SPINELLI, L. M. BROERSEN and J. FELDON 893

SPECIAL SECTION: ABSTRACTS

Abstracts from the Meeting of Division 28 of the American Psychological Association Psychopharmacology and Substance Abuse. 903

Index to Volume 66 911